



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,837	12/07/2000	John T. Austin	PD-990309	2999

7590 12/29/2004
Hughes Electronic Corporation
Corporate Patents & Licensing
P.O. Box 956
R11, Mail Station A109
El Sagundo, CA 90245-0956

EXAMINER

PAYNE, DAVID C

ART UNIT PAPER NUMBER

2633

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,837

Applicant(s)

AUSTIN, JOHN T.

Examiner

David C. Payne

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "teleport station" and "user" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. It is noted that in the specification elements (20) and (16) are declared as "teleport station" and "user terminals" respectively, however the drawings show building. These drawings are not proper illustrations for the detail of the network components as

Art Unit: 2633

claimed. Furthermore, the applicant claims a "user" but the specification uses the designation of (16) as a "user terminal."

Response to Arguments

3. Regarding claims 1 and 3 and the applicant's assertion that there is no teaching or suggestion provided in Adiwoso for coupling the gateway shown in Figure 1 (30) to the Internet Access Point (IAP) (37) (claim 1) and that the Examiner is merely speculating: As applicant notes from the prior office action citation of the Adiwoso patent, "Additionally, gateway 30a may provide a high-speed, broadband connection that allows user terminals to access information available on the internet." (see col. 4 lines 66-67) Internet access point (37) may comprise a large fiber-optical cable link providing information access at an extremely high bandwidth (e.g., gigahertz)," (see col. 5 lines 1-5).

Reciting 35 U.S.C. 103 "A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

In this case, it is not necessary that Adiwoso explicitly disclose the satellite (30) connected to the IAP (37) with fiber given the preceding disclosure. The examiner

Art Unit: 2633

contends that it is clearly obvious to connect the two points with a fiber optic line given both what is extremely well known in the art and the explicit disclosure that the IAP comprises fiber optic connections and that the satellite comprises high-speed broadband connection (a.k.a fiber). Then one of ordinary skill would connect two such high-speed connections together to form the connection as shown in Figure 1.

4. Regarding claim 2, and the Wiedeman reference. Given that claim 2 fails the test of obviousness as discussed above it is not necessary for Wiedeman to reattach the disclosure of Adiwoso. Accordingly, Wiedeman is cited to teach the practice of transmitting over the Ka band for satellite transmission. Given that Adiwoso does teach satellite transmission, the prior art rejection is proper.
5. Regarding claim 4, and the Acampora reference. The Examiner disagrees with the characterization of the Acampora reference as solving only a last mile problem. In particular the hybrid scheme is shown to operate over the span of the network not just a last mile as asserted by the applicant, see col./line: 27/35-45, more many different links:

"For example, narrow band millimeter or microwave radio could be substituted, at a generally increased cost, for some or for all of the optical links of the system. A mesh communication network over a very wide area, or over very rugged terrain, might warrant such a selective substitution of directional millimeter or microwave radio for optical links..If some of the mesh communication links at a single base station are optical, and some are millimeter radio, then the base station is clearly a "hybrid". (Each and any link may be redundant, and may be continually operated redundantly or the communication modes may be substituted for each other depending upon conditions

Art Unit: 2633

such as atmospheric interference.)”

Furthermore, since Acampora disclosed this backup routing over a free-space and optical hybrid network, one of ordinary skill would understand that the Adiwoso invention is similarly comprised of a free-space and optical hybrid network, albeit different free-space transmission frequencies and would therefore conclude that a backup between free-space and wired optical network would work regardless if the free-space technology was satellite, MMDS, SMDS, PCS, etc.

6. Re claim 5, 9 and 10 In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Acampora teaches a worldwide fiber backbone. Adiwoso teaches spot beams.

7. Re claims 6-8, the applicant's claims with respect to the aforementioned dependent claims have been addressed above.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to

Art Unit: 2633

which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso et al. US 6,067,453 (Adiwoso).

Re claim 1, Adiwoso disclosed

A communications system comprising (figure 1): a first teleport station (gateway station (20a)); a first user; a satellite coupling the first teleport station to the first user (29); and a internet access point coupled to the Internet (figure 1 (37)) and the first teleport station, said network access point coupled to the first teleport station through an optical fiber (e.g., col./line: 5/1-5). Adiwoso does not use the term teleport station and network access port as the applicant. However, it would have been obvious to one of ordinary skill in the art at the time of invention that the gateway station and teleport station serve the same purpose as connecting the user with the satellite network as well as the internet access point providing the same function as the network access point as described by the applicant. Furthermore, Adiwoso disclosed that the optical network which exists as part of the IAP (37) comprises an optical fiber. Since Figure 1, clearly shows that said IAP is connected to the satellite (30) is obvious to one of ordinary skill in the art at the time of invention that these two point could be connected with same fiber as fiber is extremely well known to connect communication end-points for high-speed data delivery.

Re claim 3, Adiwoso disclosed

A communications system further comprising a second teleport (figure 12) station coupled to the first teleport station through said satellite.

Art Unit: 2633

10. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso et al. US 6,067,453 (Adiwoso) in view of Wiedeman US 6,160,994 (Wiedeman).

Re claim 2,

Adiwoso does not disclose communications system wherein said satellite comprises a satellite in the Ka band. Wiedeman disclose the use of Ka band (e.g., col./line: 4/30-40).

It would have been obvious to one of ordinary skill in the art at the time of invention to use Ka band with the Adiwoso invention for the benefit of high speed high capacity user links as disclosed by Wiedeman (e.g., col./line: 4/30-40).

11. Claims 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso et al. US 6,067,453 (Adiwoso) in view of Acampora US 6,049,593 (Acampora).

Re claim 4,

Adiwoso does not disclose a second teleport station coupled to the second teleport station through said optical fiber network and said satellite; an optical fiber network providing a primary communication link until an irregularity is detected in said optical fiber, whereupon the sensing of the irregularity, routing the communication from said first teleport station to said second teleport station through said satellite. Acampora disclosed the use of both satellite and optical lines that connect telecommunication offices (end-office, switch 12 of Figure 1), and where one link technology can be used in the event of the failure of the other link (e.g., col./line: 27/35-55, and 28/1-15). It would have been obvious to one of ordinary skill in the art at the time of invention to use satellite or fiber as a back up system for the other since one communication mode might not provide ubiquitous coverage or in the event a communication mode failure

Art Unit: 2633

such as atmospheric conditions or fiber brake as disclosed by Acampora (e.g., col./line: 27/35-55, and 28/1-15).

Re claim 5, Adiwoso further disclosed operation over diverse geographic regions (see figure 2, 5, and 6) but does not disclose that those regions are connected over fiber. Acampora disclosed that a worldwide fiber backbone connecting end offices (see, e.g., abstract). It would have been obvious to one of ordinary skill in the art at the time of invention to connect diverse regions over fiber since fiber is a high bandwidth medium and is well known for its superior performance in transmitting long distance signals.

Re claims 6 and 9, the modified invention of Adiwoso and Acampora disclosed the steps of: generating a plurality of spot beams directed to a respective plurality of teleport stations from a satellite; (Adiwoso, col./line: 8/10-15).

Re claim 7, the modified invention of Adiwoso and Acampora disclosed the use of multiple satellites for communication between users (see Adiwoso, Figure 12).

Re claim 8, Adiwoso disclosed the step of coupling the first teleport station to the Internet (figure 1 (37)).

Re claim 10, Adiwoso disclosed the step of coupling the first teleport station to the Internet (figure 1 (37)).

Conclusion

12. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (571) 272-3024. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2633

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dcp


M. R. SEDIGHIAN
PRIMARY EXAMINER